

CLAIMS

1. An engine water pump comprising:
 - a housing having an impeller assembly opening with a continuous axial inner retention surface;
 - a sheet metal plug having a generally radial closure portion bordered by a continuous axial flange, the flange press fitted into the inner retainer surface of the housing; and
 - a sealing adhesive between the axial flange and the inner retention surface.
2. An engine water pump as in claim 1 wherein the housing includes a radial outer surface surrounding the inner retention surface, the plug has a radial lip surrounding the axial flange, and the radial lip of the plug engages the radial outer surface of the housing for positioning the plug in the opening.
3. An engine water pump as in claim 1 wherein the inner retention surface of the opening and the axial flange of the plug are generally cylindrical.
4. An engine water pump as in claim 1 wherein the adhesive is anaerobic.
5. A method of closing an impeller assembly opening in a housing of an engine water pump assembly, the method comprising the steps of:
 - forming the opening with a continuous axial inner retention surface;

providing a plug having a sheet metal body including a generally radial closure portion surrounded by a continuous axial flange adapted for press fitting into the inner retention surface;

- 10 applying a sealing adhesive to one of the axial flange of the plug and the inner retention surface of the opening;

pressing the plug into the opening with the axial flange of the plug press fitted in the inner retention surface of the opening to retain the plug in the opening; and

- 15 setting the adhesive to seal the assembly opening against fluid leakage and to increase the force of retention of the plug in the opening.

6. A method as in claim 5 wherein the plug includes a radial lip surrounding the axially extending flange, the housing includes a radial outer surface surrounding the inner retention surface, and the pressing step includes forcing the plug flange against the radial outer surface of the
5 housing to position the plug in the opening.

7. A method as in claim 5 wherein the sealing adhesive is anaerobic.